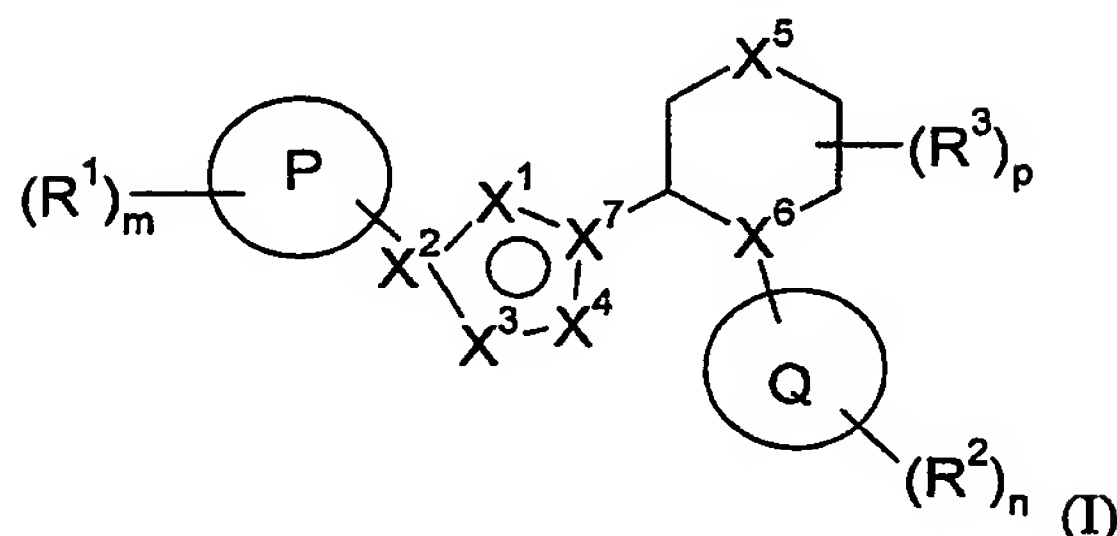


CLAIMS

1. A compound according to formula I



5 wherein

P is selected from aryl and heteroaryl;

R^1 is attached to P via a carbon atom on ring P and is selected from the group consisting of hydroxy, halo, nitro, C_{1-6} alkylhalo, OC_{1-6} alkylhalo, C_{1-6} alkyl, OC_{1-6} alkyl, C_{2-6} alkenyl, OC_{2-6} alkenyl, C_{2-6} alkynyl, OC_{2-6} alkynyl, C_{0-6} alkyl C_{3-6} cycloalkyl, OC_{0-6} alkyl C_{3-6} cycloalkyl, C_{0-6} alkylaryl, OC_{0-6} alkylaryl, CHO, $(CO)R^5$, $O(CO)R^5$, $O(CO)OR^5$, $O(CNR^5)OR^5$, C_{1-6} alkyl OR^5 , OC_{2-6} alkyl OR^5 , C_{1-6} alkyl $(CO)R^5$, OC_{1-6} alkyl $(CO)R^5$, C_{0-6} alkyl CO_2R^5 , OC_{1-6} alkyl CO_2R^5 , C_{0-6} alkylcyano, OC_{2-6} alkylcyano, C_{0-6} alkyl NR^5R^6 , OC_{2-6} alkyl NR^5R^6 , C_{1-6} alkyl $(CO)NR^5R^6$, OC_{1-6} alkyl $(CO)NR^5R^6$, C_{0-6} alkyl $NR^5(CO)R^6$, OC_{2-6} alkyl $NR^5(CO)R^6$, C_{0-6} alkyl $NR^5(CO)NR^5R^6$, C_{0-6} alkyl SR^5 , OC_{2-6} alkyl SR^5 , C_{0-6} alkyl $(SO)R^5$, OC_{2-6} alkyl $(SO)R^5$, C_{0-6} alkyl SO_2R^5 , OC_{2-6} alkyl SO_2R^5 , C_{0-6} alkyl $(SO_2)NR^5R^6$, OC_{2-6} alkyl $(SO_2)NR^5R^6$, C_{0-6} alkyl $NR^5(SO_2)R^6$, OC_{2-6} alkyl $NR^5(SO_2)R^6$, C_{0-6} alkyl $NR^5(SO_2)NR^5R^6$, OC_{2-6} alkyl $NR^5(SO_2)NR^5R^6$, $(CO)NR^5R^6$, $O(CO)NR^5R^6$, NR^5OR^6 , C_{0-6} alkyl $NR^5(CO)OR^6$, OC_{2-6} alkyl $NR^5(CO)OR^6$, SO_3R^5 and a 5- or 6-membered ring containing atoms independently selected from the group consisting of C, N, O and S;

20 X^1 is selected from the group consisting of: N, NR^4 and CR^4 ;

X^2 is selected from the group consisting of: C and N;

X^3 is selected from the group consisting of: CR^4 , N and O;

X^4 is selected from the group consisting of: CR^4 , N, NR^4 and O;

X⁶ is selected from the group consisting of: CR⁴ and N;

X⁷ is selected from the group consisting of: C and N;

R⁴ is independently selected from a group consisting of hydrogen, hydroxy, C₁₋₆alkyl, C₀₋₆alkylcyano, oxo, =NR⁵, =NOR⁵, C₁₋₄alkylhalo, halo, C₃₋₇cycloalkyl, O(CO)C₁₋₄alkyl, C₁₋₄alkyl(SO)C₀₋₄alkyl, C₁₋₄alkyl(SO₂)C₀₋₄alkyl, (SO)C₀₋₄alkyl, (SO₂)C₀₋₄alkyl, OC₁₋₄alkyl, C₁₋₄alkylOR⁵ and C₀₋₄alkylNR⁵R⁶;

Q is selected the group consisting of heterocycloalkyl and heteroaryl;

R² and R³ are independently selected from the group consisting of: hydroxy, C₀₋₆alkylcyano, oxo, =NR⁵, =NOR⁵, C₁₋₄alkylhalo, halo, C₁₋₆alkyl, C₃₋₆cycloalkyl, C₀₋₆alkylaryl, C₀₋₆alkylheteroaryl, C₁₋₆alkylcycloalkyl, C₀₋₆alkylheterocycloalkyl, OC₁₋₄alkyl, OC₀₋₆alkylaryl, O(CO)C₁₋₄alkyl, (CO)OC₁₋₄alkyl, C₀₋₄alkyl(S)C₀₋₄alkyl, C₁₋₄alkyl(SO)C₀₋₄alkyl, C₁₋₄alkyl(SO₂)C₀₋₄alkyl, (SO)C₀₋₄alkyl, (SO₂)C₀₋₄alkyl, C₁₋₄alkylOR⁵, C₀₋₄alkylNR⁵R⁶ and a 5- or 6-membered ring containing atoms independently selected from C, N, O and S, which ring may optionally be fused with a 5- or 6-membered ring containing atoms independently selected from the group consisting of C, N and O and wherein said ring and said fused ring may be substituted by one or more A;

wherein any C₁₋₆alkyl, aryl, or heteroaryl defined under R¹, R² and R³ may be substituted by one or more A;

20 A is selected from the group consisting of: hydrogen, hydroxy, halo, nitro, oxo, C₀-
6alkylcyano, C₀₋₄alkylC₃₋₆cycloalkyl, C₁₋₆alkyl, -OC₁₋₆alkyl, C₁₋₆alkylhalo, OC₁₋₆alkylhalo,
C₂₋₆alkenyl, C₀₋₃alkylaryl, C₀₋₆alkylOR⁵, OC₂₋₆alkylOR⁵, C₀₋₆alkylSR⁵, OC₂₋₆alkylSR⁵,
(CO)R⁵, O(CO)R⁵, OC₂₋₆alkylcyano, OC₁₋₆alkylCO₂R⁵, O(CO)OR⁵, OC₁₋₆alkyl(CO)R⁵, C₁₋₆
6alkyl(CO)R⁵, NR⁵OR⁶, C₀₋₆NR⁵R⁶, OC₂₋₆alkylNR⁵R⁶, C₀₋₆alkyl(CO)NR⁵R⁶, OC₁₋₆
25 6alkyl(CO)NR⁵R⁶, OC₂₋₆alkylNR⁵(CO)R⁶, C₀₋₆alkylNR⁵(CO)R⁶, C₀₋₆alkylNR⁵(CO)NR⁵R⁶,
O(CO)NR⁵R⁶, C₀₋₆alkyl(SO₂)NR⁵R⁶, OC₂₋₆alkyl(SO₂)NR⁵R⁶, C₀₋₆alkylNR⁵(SO₂)R⁶, OC₂₋₆-
6alkylNR⁵(SO₂)R⁶, SO₃R⁵, C₁₋₆alkylNR⁵(SO₂)NR⁵R⁶, OC₂₋₆alkyl(SO₂)R⁵, C₀₋

$\text{C}_6\text{alkyl}(\text{SO}_2)\text{R}^5$, $\text{C}_{0-6}\text{alkyl}(\text{SO})\text{R}^5$, $\text{OC}_{2-6}\text{alkyl}(\text{SO})\text{R}^5$ and a 5- or 6-membered ring containing atoms independently selected from the group consisting of C, N, O and S;

R^5 and R^6 are independently selected from, H, $\text{C}_{1-6}\text{alkyl}$, $\text{C}_{3-7}\text{cycloalkyl}$ and aryl ;

m is selected from 0, 1, 2, 3 or 4;

5 n is selected from 0, 1, 2, 3 or 4;

p is selected from 0, 1, 2, 3 or 4; and

a salt or hydrate thereof,

with the proviso that the compound is not:

4,4'-(1,2-piperazinediyl)di-antipyrine;

10 4,4'-(1,2-piperazinediyl)di-antipyrine dihydrochloride; or

4,4'-(1,2-piperazinediyl)di-antipyrine dipicrate;

2. A compound according to claim 1 wherein m is selected from 1, 2, 3 or 4

3. A compound according to claim 1 wherein X^7 is C.

4. A compound according to claim 1 wherein X^5 is selected from the group consisting of
15 $\text{CR}^4\text{R}^{4'}$, NR^4 , O, S, SO and SO_2 .

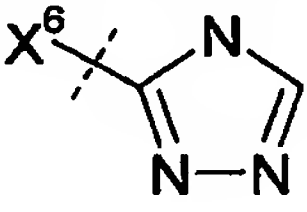
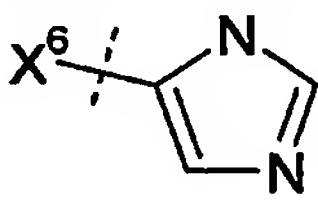
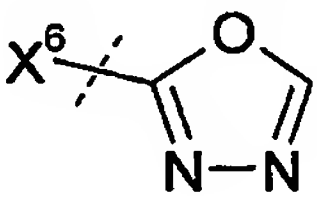
5. A compound according to claim 1 wherein X^3 is selected from the group consisting of N and O.

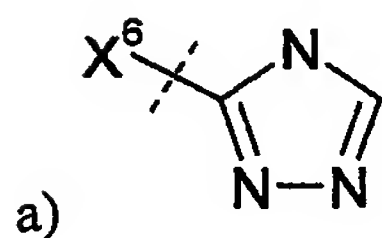
6. A compound according to claim 1 wherein P is aryl.

7. A compound according to claim 6 wherein P is phenyl.

20 8. A compound according to claim 7 wherein m is selected from the group consisting of 1 and 2.

9. A compound according to claim 1 wherein R^1 is selected from the group consisting of: halo, $\text{C}_{1-6}\text{alkylhalo}$, $\text{OC}_{1-6}\text{alkylhalo}$, $\text{C}_{1-6}\text{alkyl}$, $\text{OC}_{1-6}\text{alkyl}$, $\text{C}_{1-6}\text{alkylOR}^5$, $\text{C}_{0-6}\text{alkylcyano}$, $\text{C}_{0-6}\text{alkylNR}^5\text{R}^6$.

10. A compound according to claim 9 wherein R^1 is selected from the group consisting of: Cl, F, Me, OMe, CF_3 , OCF_3 , and CN.
11. A compound according to claim 1 wherein X^2 is C.
12. A compound according to claim 11 wherein X^1 is N or CR^4 .
- 5 13. A compound according to claim 12 wherein when X^3 is O, X^4 is N and when X^3 is N, X^4 is O.
14. A compound according to claim 1 wherein X^2 is N.
15. A compound according to claim 14 wherein X^1 is N.
16. A compound according to claim 15 wherein X^3 is N and X^4 is N or CR^4 .
- 10 17. A compound according to claim 1 wherein X^6 is N.
18. A compound according to claim 12 wherein X^5 is selected from the group consisting of a bond, CR^4R^4 , NR^4 and O.
19. A compound according to claim 13 wherein X^5 is selected from the group consisting of a bond, O and NR^4 .
- 15 20. A compound according to claim 16 wherein X^5 is selected from the group consisting of O and CR^4 .
21. A compound according to claim 1 wherein R^4 is selected from the group consisting of: hydrogen, C_{1-6} alkyl, C_{1-6} alkylhalo and halo.
22. A compound according to claim 1 wherein Q is heteroaryl.
- 20 23. A compound according to claim 1 wherein Q is selected from the group consisting of:
- a)  , b)  , and c)  .
24. A compound according to claim 23 wherein Q is



25. A compound according to claim 1 wherein R^2 and R^3 are independently selected from the group consisting of: C_{1-4} alkylhalo, C_{1-6} alkyl, C_{3-6} cycloalkyl, C_{0-6} alkylaryl and C_{0-6} alkylheteroaryl.

5 26. A compound according to claim 1 wherein A is selected from the group consisting of: hydrogen, hydroxyl, halo, C_{0-6} alkylcyano, C_{1-6} alkyl, $-OC_{1-6}$ alkyl, C_{1-6} alkylhalo, OC_{1-6} alkylhalo.

27. A compound according to claim 1 selected from:

4-(5-{2-[5-(3-Chloro-phenyl)-isoxazol-3-yl]-piperidin-1-yl}-4-methyl-4H [1,2,4]triazol-3-yl)-pyridine

3-[5-(3-Chloro-phenyl)-isoxazol-3-yl]-4-(4-methyl-5-pyridin-4-yl-4H-[1,2,4]triazol-3-yl)-morpholine

3-[5-(3-Chloro-phenyl)-isoxazol-3-yl]-4-[5-(4-difluoromethoxy-phenyl)-4-methyl-4H-[1,2,4]triazol-3-yl]-morpholine

15 3-[3-(3-Chloro-phenyl)-[1,2,4]oxadiazol-5-yl]-4-(4-methyl-5-pyridin-4-yl-4H-[1,2,4]triazol-3-yl)-morpholine

3-[3-(3-Chloro-phenyl)-[1,2,4]oxadiazol-5-yl]-4-[5-(4-difluoromethoxy-phenyl)-4-methyl-4H-[1,2,4]triazol-3-yl]-morpholine

20 3-[3-(3-Chloro-phenyl)-[1,2,4]oxadiazol-5-yl]-4-(4-methyl-5-pyridin-4-yl-4H-[1,2,4]triazol-3-yl)-piperazine-1-carboxylic acid tert-butyl ester

2-[3-(3-Chloro-phenyl)-[1,2,4]oxadiazol-5-yl]-1-(4-methyl-5-pyridin-4-yl-4H-[1,2,4]triazol-3-yl)-piperazine

2-[3-(3-Chloro-phenyl)-[1,2,4]oxadiazol-5-yl]-4-methyl-1-(4-methyl-5-pyridin-4-yl-4H-[1,2,4]triazol-3-yl)-piperazine

- 3-[3-(3-Chloro-phenyl)-[1,2,4]oxadiazol-5-yl]-4-[5-(4-difluoromethoxy-phenyl)-4-methyl-4H-[1,2,4]triazol-3-yl]-piperazine-1-carboxylic acid tert-butyl ester
- 2-[3-(3-Chloro-phenyl)-[1,2,4]oxadiazol-5-yl]-1-[5-(4-difluoromethoxy-phenyl)-4-methyl-4H-[1,2,4]triazol-3-yl]-piperazine
- 5 2-[3-(3-Chloro-phenyl)-[1,2,4]oxadiazol-5-yl]-1-[5-(4-difluoromethoxy-phenyl)-4-methyl-4H-[1,2,4]triazol-3-yl]-4-methyl-piperazine
- 2-[2-(3-Chlorophenyl)-2H-tetrazol-5-yl]-1-{5-[4-(difluoromethoxy)phenyl]-4-methyl-4H-1,2,4-triazol-3-yl}piperidine
- 4-(5-{2-[2-(3-chlorophenyl)-2H-tetrazol-5-yl]piperidin-1-yl}-4-methyl-4H-1,2,4-triazol-3-yl)pyridine
- 10 2-[2-(3-Chlorophenyl)-2H-tetrazol-5-yl]-1-[5-(4-methoxyphenyl)-4-methyl-4H-1,2,4-triazol-3-yl]piperidine
- [4-(5-{2-[2-(3-chlorophenyl)-2H-tetrazol-5-yl]piperidin-1-yl}-4-methyl-4H-1,2,4-triazol-3-yl)phenyl]dimethylamine
- 15 [4-(5-{2-[2-(3-Chloro-phenyl)-2H-tetrazol-5-yl]-piperidin-1-yl}-4-methyl-4H-[1,2,4]triazol-3-yl)-benzyl]-dimethyl-amine
- {2-[4-(5-{2-[2-(3-Chloro-phenyl)-2H-tetrazol-5-yl]-piperidin-1-yl}-4-methyl-4H-[1,2,4]triazol-3-yl)-phenoxy]-ethyl}-dimethyl-amine
- (R)-3-[3-(3-Chloro-phenyl)-[1,2,4]oxadiazol-5-yl]-4-(4-methyl-5-pyridin-4-yl-4H-[1,2,4]triazol-3-yl)-morpholine
- 20 (S) 3-[3-(3-Chloro-phenyl)-[1,2,4]oxadiazol-5-yl]-4-(4-methyl-5-pyridin-4-yl-4H-[1,2,4]triazol-3-yl)-morpholine
- (R)-2-[2-(3-Chlorophenyl)-2H-tetrazol-5-yl]-1-{5-[4-(difluoromethoxy)phenyl]-4-methyl-4H-1,2,4-triazol-3-yl}piperidine
- 25 (S)-2-[2-(3-Chlorophenyl)-2H-tetrazol-5-yl]-1-{5-[4-(difluoromethoxy)phenyl]-4-methyl-4H-1,2,4-triazol-3-yl}piperidine

(R)-4-(5-{2-[2-(3-Chlorophenyl)-2H-tetrazol-5-yl]piperidin-1-yl}-4-methyl-4H-1,2,4-triazol-3-yl)pyridine

(S)-4-(5-{2-[2-(3-Chlorophenyl)-2H-tetrazol-5-yl]piperidin-1-yl}-4-methyl-4H-1,2,4-triazol-3-yl)pyridine

5 4-[5-(5-{2-[5-(3-Chloro-phenyl)-isoxazol-3-yl]-pyrrolidin-1-yl}-4-cyclopropyl-4H-[1,2,4]triazol-3-yl)-pyridin-2-yl]-morpholine,

4-[5-(5-{2-[5-(3-Chloro-phenyl)-isoxazol-3-yl]-pyrrolidin-1-yl}-4-methyl-4H-[1,2,4]triazol-3-yl)-pyridin-2-yl]-morpholine,

10 3-(5-{2-[5-(3-Chloro-phenyl)-isoxazol-3-yl]-pyrrolidin-1-yl}-4-methyl-4H-[1,2,4]triazol-3-yl)-pyridine,

4-(5-{2-[5-(3-Chloro-phenyl)-isoxazol-3-yl]-pyrrolidin-1-yl}-4-cyclopropyl-4H-[1,2,4]triazol-3-yl)-pyridine,

3-[5-(3-Chloro-phenyl)-[1,2,4]oxadiazol-3-yl]-4-(5-pyridin-4-yl-4H-[1,2,4]triazol-3-yl)-morpholine,

15 3-[5-(3-chlorophenyl)isoxazol-3-yl]-4-(4-cyclopropyl-5-pyridin-3-yl-4H-1,2,4-triazol-3-yl)morpholine,

3-[5-(3-chlorophenyl)isoxazol-3-yl]-4-(4-cyclopropyl-5-pyridin-4-yl-4H-1,2,4-triazol-3-yl)morpholine,

20 3-[5-(3-chlorophenyl)isoxazol-3-yl]-4-(4-methyl-5-pyridin-3-yl-4H-1,2,4-triazol-3-yl)morpholine,

3-[5-(3-Chloro-phenyl)-isoxazol-3-yl]-4-[5-(6-methoxy-pyridin-3-yl)-4-methyl-4H-[1,2,4]triazol-3-yl]-morpholine,

3-[3-(3-chlorophenyl)-1,2,4-oxadiazol-5-yl]-4-[5-(2-methoxypyridin-4-yl)-4-methyl-4H-1,2,4-triazol-3-yl]morpholine,

25 3-[3-(3-chlorophenyl)-1,2,4-oxadiazol-5-yl]-4-[5-(2-methylpyridin-4-yl)-4-methyl-4H-1,2,4-triazol-3-yl]morpholine,

3-[3-(3-chlorophenyl)-1,2,4-oxadiazol-5-yl]-4-[5-(5-fluoropyridin-3-yl)-4-methyl-4H-1,2,4-triazol-3-yl]morpholine,

3-[5-(3-chlorophenyl)isoxazol-3-yl]-4-[5-(5-fluoropyridin-3-yl)-4-methyl-4H-1,2,4-triazol-3-yl]morpholine,

5 3-[3-(3-chlorophenyl)-1,2,4-oxadiazol-5-yl]-4-(4-methyl-5-pyridin-2-yl-4H-1,2,4-triazol-3-yl)morpholine,

4-[5-(5-fluoropyridin-3-yl)-4-methyl-4H-1,2,4-triazol-3-yl]-3-[3-(3-iodophenyl)-1,2,4-oxadiazol-5-yl]morpholine,

10 3-[3-(3-iodophenyl)-1,2,4-oxadiazol-5-yl]-4-(4-methyl-5-pyridin-4-yl-4H-1,2,4-triazol-3-yl)morpholine,

3-[5-(3-chlorophenyl)isoxazol-3-yl]-4-[5-(2-methylpyridin-4-yl)-4-methyl-4H-1,2,4-triazol-3-yl]morpholine,

3-[2-(3-chlorophenyl)-2H-tetrazol-5-yl]-4-(4-methyl-5-pyridin-3-yl-4H-1,2,4-triazol-3-yl)morpholine,

15 3-[2-(3-chlorophenyl)-2H-tetrazol-5-yl]-4-[5-(3,5-difluorophenyl)-4-methyl-4H-1,2,4-triazol-3-yl]morpholine,

3-(5-{2-[5-(3-chlorophenyl)isoxazol-3-yl]pyrrolidin-1-yl}-4-cyclopropyl-4H-1,2,4-triazol-3-yl)pyridine, and

20 4-(5-{2-[5-(3-chlorophenyl)isoxazol-3-yl]pyrrolidin-1-yl}-4-methyl-4H-1,2,4-triazol-3-yl)pyridine.

28. A pharmaceutical composition comprising as active ingredient a therapeutically effective amount of the compound according to any one of claims 1 to 26, in association with one or more pharmaceutically acceptable diluent, excipients and/or inert carrier.

29. The pharmaceutical composition according to claim 28, for use in the treatment of
25 mGluR 5 mediated disorders.

30. The compound according to any one of claims 1 to 27, for use in therapy.

31. The compound according to any one of claims 1 to 27, for use in treatment of mGluR 5 mediated disorders.
32. Use of the compound according to any one of claims 1 to 27, in the manufacture of a medicament for the treatment of mGluR 5 mediated disorders.
- 5 33. A method of treatment of mGluR 5 mediated disorders, comprising administering to a mammal, including man in need of such treatment, a therapeutically effective amount of the compound according to any one of claims 1 to 27.
34. The method according to claim 33, for use in treatment of neurological disorders.
35. The method according to claim 33, for use in treatment of psychiatric disorders.
- 10 36. The method according to claim 33, for use in treatment of chronic and acute pain disorders.
37. The method according to claim 33, for use in treatment of gastrointestinal disorders.
38. A method for inhibiting activation of mGluR 5 receptors, comprising treating a cell containing said receptor with an effective amount of the compound according to claim 1.